Apache Longbow

UNITED STATES ARMY

MISSION

Conduct rear, close, and deep operations and deep precision strikes; provide armed reconnaissance and security when required in day, night, and adverse weather conditions.

DESCRIPTION AND SPECIFICATIONS

Apache Longbow is a development and acquisition program for a millimeter-wave radar air/ground targeting system capable of being used day, night, in adverse weather, and through battlefield obscurants. Longbow integrates a mast-mounted millimeter-wave fire control radar (FCR), a radar frequency interferometer, and a radar frequency fire-and-forget HELLFIRE missile on the Apache. Longbow's digitized target acquisition system provides automated detection, location, classification, prioritization, and target handover.

The AH-64D cockpit is redesigned to digitize and multiplex all systems. MANPRINT crew stations have multi-function displays to reduce pilot workload and increase effectiveness. The modernized Apache heavy attack team will now be able to provide a truly coordinated rapid-fire capability (servicing 16 separate targets within one minute) to the maneuver force commander on a 24-hour basis in day, night, and adverse weather conditions.

Apache Longbow will add significant warfighting capability to the combined arms team through increased survivability, lethality, versatility, and long-term reliability improvements.

Combat mission speed: 167 mph
Combat range: 300 miles
Combat endurance: 2.5 hours
Mission weight: 16,600 lb
Armament: Hellfire missiles, 2.75" rockets and 30mm chain gun
Crew: 2 (pilot and co-pilot gunner)

FOREIGN COUNTERPART

No known foreign counterpart

FOREIGN MILITARY SALES

The Netherlands, Singapore; commercial sale: United Kingdom.

PROGRAM STATUS

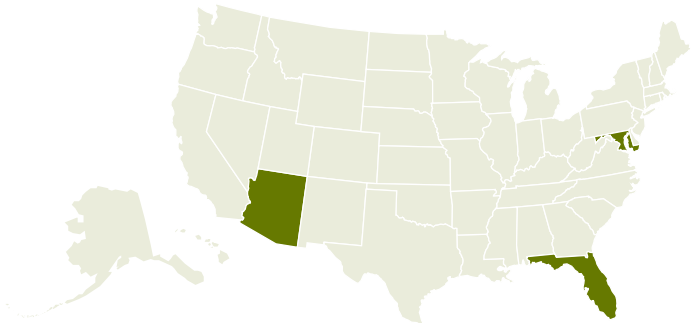
- **1QFY96** The Apache Longbow system completed full scale development and entered the production and deployment phase in October 1995; Completed full-scale development and began production and deployment.
- **2QFY96** The first production model aircraft was delivered in March 1997. Technical successes during the proof-of-principle phase in 1990, initial operational test and evaluation, and the Army's Warfighting Experiment at the National Training Center in the spring of 1997, proved the AH-64D to be an operationally effective and suitable weapon system, far more effective in defeating threat armored vehicles and more survivable against threat air defense weapons than the AH-64A.
- **2QFY97** Delivered first production model aircraft.
- **FY00** Began Second-Generation Forward-Looking Infrared (FLIR) development.
- **4QFY00** Awarded MYII option FY01 to FY05.
- **1QFY01** Awarded Modernized TADS contract (2nd Gen FLIR).
- **Current** The current program objective calls for the remanufacture of 501 AH-64A Apaches, of which 227 will be equipped with FCR and the upgraded T701C engine.

PROJECTED ACTIVITIES

- Continue Apache Longbow fielding.

PRIME CONTRACTORS

Airframe: Boeing (Mesa, AZ)
Fire Control Radar: Lockheed Martin (Orlando, FL); Northrop Grumman (Linthincum, MD)



* See appendix for list of subcontractors